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ABSTRACT

The six articles in this issue demonstrate how collaborative education efforts can be useful in meeting the needs of bilingual communities. The first article describes a Community Based Education model derived from experience in developing, implementing, and evaluating it. The article details the collaborative efforts between a bilingual school district and an institution of higher education to benefit children and their families in and outside of school settings. The second article describes Project PIAGET, a bilingual kindergarten program for Hispanic children, explains plans for replicating the program in other bilingual communities, and outlines a five-point home model aimed at enhancing the contributions bilingual parents can make in teaching their children in home settings. The third explains how collaborative efforts between bilingual teachers, parents, school districts, and university personnel can effectively build a classroom program in school settings for five-year-old bilingual kindergarten children. The fourth article outlines procedures which bilingual teachers and parents can use in developing learning centers for bilingual children in school and home. The penultimate article explores how bilingual children learn to read a second language and draws implications for cultural adjustment. The concluding article describes ideas and implications of a collaborative effort to work effectively with Puerto Rican students and others who have difficulty communicating in a second language. (RDN)

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COLLABORATION OF EDUCATIONAL INSTITUTIONS TO MEET THE NEEDS OF BILINGUAL COMMUNITIES.

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Diseño de Portada: Ismael Hidalgo
Fotografía : Humberto Ortiz
Producción : Armando Silva
Secretarias : Madeline Rivera
Irma Miranda
Paulina Colón

Bilingual Education: A Collaborative Process Between Institutions of Higher Education, Local Educational Agencies and the Community

Edited by

Joseph O. Prewitt Diaz, Cecil R. Trueblood, Thomas D. Yawkey

Division of Curriculum and Instruction

The Pennsylvania State University

University Park, Pennsylvania 16802

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María Socorro Lacot
Secretary

Waldemar Pérez Quintana
Executive Director

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List of Contributors

Fay Ilene Glosenger (38), Supervisor, Office of Clinical Experiences, 170 Chambers Building, The Pennsylvania State University, University Park, Pennsylvania, 16802

Jose A. Martinez (8), Research Assistant, Project P.I.A.G.E.T., 201 Chambers Building, The Pennsylvania State University, University Park, Pennsylvania, 16802

Thomas J. Miller (8, 28), Research Assistant, Project P.I.A.G.E.T., 201 Chambers Building, The Pennsylvania State University, University Park, Pennsylvania, 16802

Joseph O. Prewitt Diaz (44, 53), Assistant Professor of Education, Division of Curriculum and Instruction, 176 Chambers Building, The Pennsylvania State University, University Park, Pennsylvania, 16802

Cecil R. Trueblood (1), Professor of Education, Division of Curriculum and Instruction, 150 Chambers Building, The Pennsylvania State University, University Park, Pennsylvania, 16802

Doris M. Trueblood (1), Coordinator of Long Range Planning, Penns Valley Area School District,

Thomas D. Yawkey (8), Associate Professor of Early Childhood Education, Division of Curriculum and Instruction, 159 Chambers Building, The Pennsylvania State University, University Park, Pennsylvania, 16802

Preface

The present volume brings together the efforts of the Division of Curriculum and Instruction, The Pennsylvania State University to formulate exemplary bilingual programs collaboratively with the local school districts and the community. Developments from the two programs described herein are brought to bear on the important question of what effect a collaborative process in bilingual eduction may have on the language user and the society in which that child lives. The central focus of this paper is not to judge whether bilingual education is in itself a beneficial or detrimental methodology. Rather, given the fact that bilingual education is a fact of life in the United States, it is our goal to try to determine which characteristic of the bilingual setting leads to its being perceived as a source of enrichment and diversity.

The persons interested in bilingual education planning and policy decision, the structure and behavior of immigrant populations, as well as the analysis of sociopolitical structures should find much of interest and value. It should be pointed out, however, that this volume is not intended to be a comprehensive treatment of the collaborative process in bilingual education. The contributors have focused on those issues pertinent to program development as perceived by the contributors.

This paper is the product of field research in the areas of bilingual education in early childhood and high school. All of the papers included herein are the product of the collaboration between Penn State University, local school districts and the community. This project was possible through a grant from the United States Department of Education and the Commonwealth of Puerto Rico.

Except for minor revisions and editorial changes, the individual contributions appear as they were originally written. The introductory chapter was prepared by Dr. Trueblood and provides the necessary background for the individual contributions.

Acknowledgements

As the editors of this paper, we would like to express our appreciation to the many persons who have participated in the projects. In particular, we appreciate the support of the United States Department of Education (U.S.D.E. 8103252) for the grant that facilitated the implementation of Project P.I.A.G.E.T. The editors are also grateful to the Department of Education of the Commonwealth of Puerto Rico for the financial support, and the use of the system as a learning laboratory.

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Introduction and Overview

The articles in this volume demonstrate how collaborative education efforts can be useful in meeting the needs of bilingual communities. The concepts of collaboration and Community Based Education are particularly suited to solving the problems associated with bilingual education efforts because they focus on providing more resources for common goals. They develop mutual trust among diverse cultural groups working toward those goals and they highlight the megatrend of global interdependence thrust upon the United States by its emerging communication technology.

Project P.I.A.G.E.T. uses the process of collaboration and Community Based Education by involving school district personnel, parents and university professors in its home based programs. The integration of center/classroom and home based programs is one of the unique aspects of this project. For example, teachers and paraprofessionals (i.e. parents) work collaboratively to achieve the common goal of enhancing students's proficiency in English language and self/cultural identity.

As pointed out by Professor Prewitt in Chapter 5 the problem of cultural adjustment must often be dealt with, through the collaborative efforts of the home and the school, the two institutions where children must live and communicate. By using the collaborative process the problems students have integrating and internalizing a dual environment can but be addressed when the adults in the homes and schools in a community work together to help their children make the cultural adjustment required to succeed in school.

Chapter 1

Community Based Education

A Collaborative Model

Cecil R. Trueblood

Doris Trueblood

The purpose of this chapter is to describe and illustrate with examples The Teacher Corps[1] Community Based Education (CBE) model for involving faculty from Institutions of Higher Education (IHE's), Local Education Agencies (LEA's), and their related communities in collaborative educational efforts. The collaborative model is particularly useful when working on the problem associated with implementing bilingual education programs. Although the primary focus of this chapter is the Teacher Corps' CBE model, there are underlying assumptions that the authors have identified so the reader is aware of their role in designing the CBE activities described at the end of the chapter.

The chapter is organized into three parts; the assumptions underlying the CBE model, the key elements of the model, and example CBE activities.

CBE Model Assumptions

First consider the assumption underlying the Teacher Corps' CBE model. These are:

1) There are critical needs for adult education that are hounding professional educators with increasing urgency. These needs include hunger, political strife, fear, ignorance, injustice, etc. No single act or solution will fulfill such needs. However, collaborative educational efforts do succeed and each success helps recipients become better than they were. Hence, these programs are worth the effort.

[1]The Teacher Corps, established by Congress in 1965, is a nationwide effort to strengthen educational opportunity available to areas having concentration of low-income families. It is funded by U.S.O.E.

2) Institutions of Higher Education (IHE's) and public school (LEA's) have responsibility for working with communities to help them meet some of their adult education needs.

3) Colleges, universities, and governments should assume an educational role that eventually teaches people how to solve their own problems.

4) Collaboration is an effective process for colleges and universities to use to help communities meet adult education needs because it focuses more resources on common goals than other models.

5) Universities, public schools, and communities can establish the necessary level of mutual trust and involvement needed to reach common goals.

6) Adult education needs can no longer be ignored because we all live in an interdependent global community that now faces severe social and resource problems. The university has been given resources by the public that are expected to be used to help solve some of these problems.

7) Community Based Education (CBE) should be a continuing process and public school participation will help improve school-based education.

Key Elements of Community Based Education

The key elements of Community Based Education are described in detail by Young, Banney, and White (1980). They include the concepts of Community, Education, and Collaboration.

Community. As used in the CBE label, the term Community means having a common unity or a oneness in purpose and in relationships. The implication is that when people share common purposes, values, responsibilities, and interests they can be considered to be a Community.

An example of such a community is the workplace. This is true even though the people sharing a oneness of purpose live in different locations. This is especially true in schools and universities where the situation just described is the rule rather

than the exception. The major point is, the term Community refers to people having both identity and belong through common goal ownership and common location, e.g., the workplace. Such is the case when a school district, community and an institution of education work together to implement a bilingual education project.

Education. This term also means different things to different people. To most people education is associated with only what goes on inside the walls of a school building. This, of course, restricts the word education to a very limited meaning; namely a process that goes on inside a building with students. This is useful to those in the profession who wish to delimit and restrict professional education to a school building or a particular institution but not to the professional who has decided that such restrictions are arbitrary and non-functional in a global community.

As used in CBE, the term Education refers to a life-long learning process that helps people acquire the knowledge, skills, values, and resources needed to cope with their daily experiences. As you might guess this learning process begins in the home and extends to the neighborhood, to the mass media, to the school, and to the workplace. The point is, Education includes the total set of experiences encountered by an individual in the home, community, school, and workplace. This concept is particularly relevant to the successful implementation of a bilingual education program in a school district.

Collaboration. This is the key and the most important element of the concept of CBE. The term implies the establishment of mutual trust among individuals and for groups working toward a common purpose. Mutual trust is the key factor in making collaboration function as it should. The word means working together toward commonly agreed upon goals. This idea is illustrated by Young, Banney, and White, 1980 in Figure 1. As you can observe in Figure 1, the idea of collaboration is contrasted with cooperation and coordination, two terms with which it is most often confused. Cooperation/coordination imply one-way trust while collaboration implies

mutual (two-way) trust. Thus, collaboration requires the establishment of a two-way relationship between all groups having ownership of an education goal such as bilingual education to be pursued by a particular community. It means each group is pursued by a particular community. It means each group is obligated to provide the other with resources, knowledge, technical assistance, and any other support required to reach their common goal. The idea of collaboration in CBE means an active process of groups supporting (not competing with) each other as they work toward common goals. Collaboration has at least two dimensions, positive human relationships and commonly agreed upon tasks. Both of the dimensions are necessary to effect collaboration.

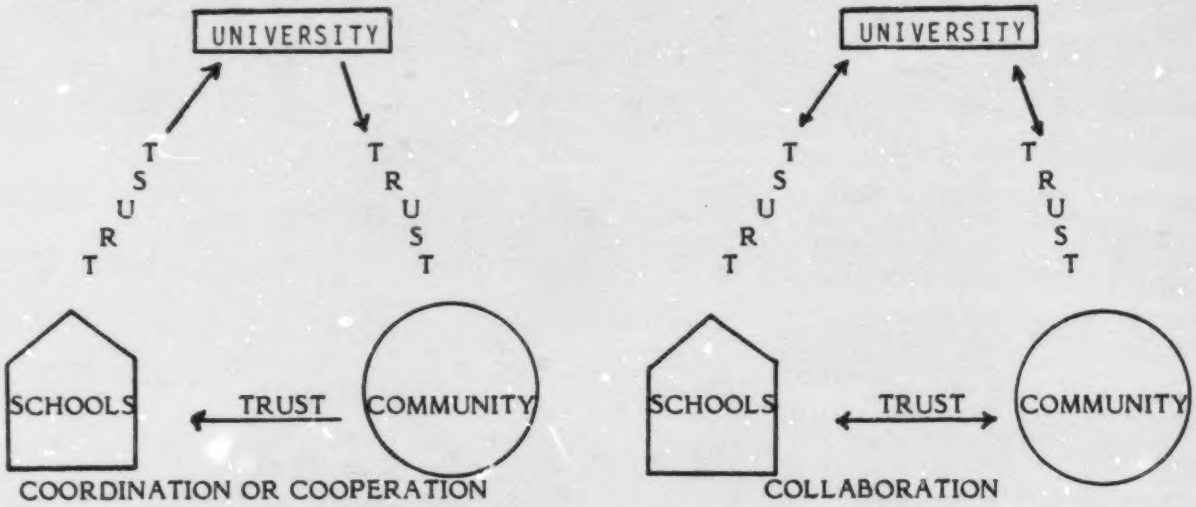

Figure 1

One problem we currently face and must resolve if collaboration is to be used effectively is that we live in a culture where competition is the rule. This makes collaboration difficult to accept and to achieve. The net result is that educational institutions remain unresponsive to each others' needs. Universities are unresponsive to public schools, public schools often refuse to attend to community

needs, and the public refuses to support public schools, colleges, and university requests for resources.

Why is collaboration more effective than competition in meeting the educational needs of individuals and groups? The authors have found that:

1) Collaboration produces more effective answers to some educational problems because it pools the knowledge, expertise, and resources of a variety of groups and individuals.
2) Collaboration tends to reduce wasteful duplication and diffusion of effort.
3) Collaboration builds understanding, respect, and mutual support among groups having common goals.
4) Collaboration places the resources and the energy of people closest to those having problems.

CBE Activities

The following activities illustrate the kinds of accomplishments that can be realized using CBE. They also highlight the processes and products resulting from the CBE model. Each activity illustrates the use of collaborative decision making, the use of continuous needs assessment, the nature of programs used to meet common goals, and the cooperation required among public schools, community organizations, and higher education personnel.

The higher education personnel, communities, and schools referred to in our collaborative programs below are located in Central Pennsylvania. Central Pennsylvania is a rural area surrounding The Pennsylvania State University (PSU). Penn State University is a Land Grant University composed of 12 colleges and 22 campuses serving 65,000 full time students. Its Teacher Corps Project is operated by the College of Education, a leader among teacher training institutions in the United States.

Adult Education Programs. Most adult education programs are jointly sponsored by either public schools, community colleges, vocational—technical schools, or colleges and universities. For example, using the collaborative model PSU's Teacher Corps Community Council operating through their school district (Keystone Central School District) conducted a needs assessment to determine the needs of the adults in the Clinton County area. The Bucktail/Renovo Community Council then selected the courses to be taught and the appropriate instructors. The Community Council, the school district, and PSU then jointly published the offerings through the local news media. Courses offered have included welding, auto mechanics, typewriting, parenting, and nutrition. The instructors have included public school teachers, college professors, and citizens from local industries with special expertise. The ongoing evaluation of these programs have shown the classes to be very successful. They have provided trained welders needed by local industries, secretarial training for unemployed adults, and useful skills and information for young parents.

Child Care Services. Child care services are provided in Central Pennsylvania through a regional Child Development Council. The council consists of parents of children served by the various child care centers, professional teachers, university professors, businessmen, and other citizens who work together using the collaborative model. This means that they have all collaboratively planned community child care and educational programs. The first priority of the child Development Council was child care for working mothers. Most recently, collaborative planning was used to provide an educational program for their children while they are at the day care center. The programs' funds come from local fund raising drives and from government grants acquired by council members. The education programs are based upon a needs assessment completed by the participants. The current program provides for nutritional needs, health care

through medical referrals, parenting workshops, and menu planning workshops for parents. Bilingual employees were also hired to help meet the needs of the hispanic children in the community.

Adult Literacy Program. Most adult literacy programs are initiated through community organizations that recognize a need exists or have recieved requests to help someone learn how to read and write. Following these expressed needs, the organizations search for qualified instructors and tutors through schools, colleges, or other community organizations. Together the sponsoring community organization, the instructor or tutors, and the learner collaboratively determine the program for an individual. In the case of the literacy program in Centre County, Pennsylvania, The Pennsylvania State University is asked to provide testing and diagnostic services that will identify problems that could hinder learning. They also help plan reading instruction for individuals. Again the need for collaborative decision making among the learner, community, school, and university is apparent. Evaluation of the learner's progress is also the joint responsibility of those involved in the program.

Conclusion

The Community Based Education model provides participants with the opportunity to use their collective perceptions, resources, and efforts to effect incremental solutions to local problems essential to a brighter future for our society. The CBE process of planning, innnovation, and building solutions to problems represent one of our best chances for a higher quality of education in the 21st century.

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Chapter 2

A Summary of Project P.I.A.G.E.T. With Hispanic Bilingual Five Year Old Children and Their Families

Jose A. Martinez Thomas J. Miller Thomas D. Yawkey

In 1981-1982 Project P.I.A.G.E.T. was initially funded by the U.S. Department of Education to train five year old Hispanic children in the English language while maintaining their Spanish language. As a new Title VII demonstation program, project P.I.A.G.E.T. was funded for one year with two possible additional years of funding. Its co-sponsors are The Bethlehem Area School District (B.A.S.D.) and The Pennsylvania State Univeristy (P.S.U.). Project P.I.A.G.E.T. is an acronoym which stands for "Promoting Intellectual Adaptation Given Experiential Transforming" and is based on the psychology of Dr. Jean Piaget which explains how young children develop and learn to think and communicate about their social and physical worlds.

Project P.I.A.G.E.T. has a number of important characteristics. First, it rests on basic principles of Piaget's psychology such as: (a) the need for acting on their physical and social environments in order for the children to construct language and thought; (b) the understanding that all systems of thought and language develop in a sequenced way; (c) the child's interest and self regulation serve as motivators for learning and coupled with adult guidance increase the potential for growth in language and thought; (d) social peer groups can serve to enhance the growth of language and thought in young children; and (e) the child's spontaneous and adult-guided play help develop and expand language and thought concepts. More specifically, the major psychological principles are:

1. The focus of the proposed bilingual kindergarten program is the acquisition of intelligence in a language and cognitive sense through acting and adapting to Classroom/Center and home environments in which these children live and learn. (Piaget, 1969; 1965; 1963).
2. The Piagetian cognitive-interactionism, as a general foundation for the bilingual kindergarten program, illuminates the linguistic/cognitive benchmarks characteristic of this age child. Coupled with the data gathered from the assessment of needs of these bilingual youngsters, these benchmarks and assessment of needs of these bilingual children provide powerful tools in and a firm structure for assisting their development and learning (Inhelder and Piaget 1958; 1964).
3. The focus of this bilingual kindergarten program aims at providing sequenced and concrete language/cognitive growth which, in turn, prepares the way for later more advanced and abstract linguistic/cognitive concepts (Piaget, 1962; 1952).
4. The focus of the bilingual kindergarten program is experiential and requires the youngsters to become actively and physically involved in constructing their linguistic/cognitive knowledge in the physical environment and using adult-guided Piagetian-derived experiential techniques (Piaget, 1963; 1952).
5. The bilingual kindergarten program and the instructional approach and its components focus on the child's self regulation of his/her learning through adult guidance (Piaget, 1965).
6. The bilingual kindergarten program employs the principle of social interaction derived from Piagetian cognitive-interactionism (Inhelder & Piaget, 1964).

7. The bilingual kindergarten program and its instructional approach emphasize constructivist play routines (Piaget & Inhelder, 1964; Yawkey, 1980).

Second, these and other basic psychological principles are implemented and expanded through instructional techniques implied from these principles. Several of these techniques that form the bases for Project P.I.A.G.E.T. include: (a) active involvement of the children in learning; (b) on-going diagnosis of present levels of language; (c) language substitution patterns; (d) replacement patterning and selecting visual attending and questioning.

Third, Project P.I.A.G.E.T. contains four project kindergarten sites in elementary schools predominately in Hispanic communities. Two full time bilingual teachers and four full time paraprofessionals service the project sites.

Fourth, the project contains both center and home-based programs and a description of each follows.

The P.I.A.G.E.T. Project Home Based Program is a second delivery system that:

1) delivers instruction on child language and rearing techniques to the parents. In this way the parents who work with their own children in home settings, complements, crystallizes, and expands the service of the project.
2) delivers information about child language and care giving routines on particular topics and relevant areas of interest to the project parents.
3) delivers paraprofessionals into the home of the families of the bilingual kindergarten children served.
4) delivers information about P.I.A.G.E.T. to parents and clarifies its four mission goals and performance objective relative to questions/concerns/interests.

The Center/Classroom and Home Programs rest on delivering instructional support systems to target participants and their families. The delivery systems unfold, in part, through instructional techniques and are carefully selected.

For the Home Program a minimum of two paid paraprofessionals are employed to undergo training. These paraprofessionals are trained and have opportunities to practice adult strategies and routines derived from the cognitive-interactionism psychology prior to entry into the homes of parents having children in the Center/Classroom Program. Inservice training also continues on a weekly schedule throughout the project year.

The paraprofessionals in the Home Program during the first year of the project will be able to:

1) work directly with the parents of the bilingual kindergarten children on showing and modeling adult instructional techniques derived from the cognitive interactionism principles.
2) explain the philosophy of the project relative to the needs and concerns of the individual bilingual families.
3) develop positive and constructive attitudes in the parents of the benefits of schooling for their children enrolled in the Center/Classroom Program.
4) develop and model caregiving routines and child development practices for the parents to be better able to use them and teach their children in their home.
5) expand the parents' attitudes about their family, and schooling and their hopes for their children.
6) show parents how to effectively use the newsletter, "Tips for Parents of Bilingual Kindergarten Children," and specifically demonstrate the uses of the learning activities and experiences identified and explained in the newsletter with their youngsters.

7) demonstrate model and have the parents imitate the use of common objects and materials found in their homes for learning experiences in language and for other concept growth areas.

8) demonstrate model and have the parent imitate the use of common objects and materials found in their homes for learning experiences in language and for other concept growth areas.

The Center/Classroom aspect of Project P.I.A.G.E.T. is designed to deliver:

1) language, cognitive (thinking skills), and self-identity instruction to bilingual kindergartners in Spanish and English;

2) health and nutritional service to bilingual kindergartners and their families being served in the project;

3) instructional support to classroom teachers through paid part-time parent citizen educators. These paraprofessionals will be parents of children enrolled in the project;

4) a newsletter entitled, "Tips for Parents of Bilingual Kindergartners." This communication will be provided to parents concerning the day to day activities of the project. This is intended to instill the "whats" and "hows" of educational activities carried out in the classroom so that parents can follow-through with them in the home. The newsletter will be issued on a bi-monthly basis;

5) a setting in which parents of bilingual kindergarten children learn about the educational system and how to make appropriate decisions about their child's present and future schooling.

The objectives of the Center/Classroom Based Program of Project P.I.A.G.E.T. are based on the following concepts. These knowledge and fundamental areas are seen as critical in the learning process and will serve as the foundation of all learning activities.

1) social and physical knowledge--learning to give and gain information from people and things in the child's environment;

2) representational skills--learning to tranform things and events into words for the purpose of communication and more efficient learning ability;

3) cognitive/logic--mathematical skills--the ability to organize information into logical categories as size, shape, weight, likes and differences. Organizing information into manageable units and determining logical sequences from various views, such as small to large; narrow to wide. These concepts are seen as necessary for the development of mathematical abilities;

4) self and cultural identity--establishing a positive as well as realistic self image as a family member, a member of the Hispanic cultural groups and as a member of society at large; and,

5) make-believe using pretend ideas, thoughts and actions in dramatic and socio-dramatic "free" play.

Instructional objectives based on the concepts just discussed are many and varied. One of the main considerations would be that the child not learn only labels for things, feelings, but the essence or ever changing nature of the world around him. He must be able to compare, determine similarities and differences in things and feelings, and reach conclusions that will help him constructively adapt to his educational, home and community enrivonments. Examples of instructional objectives under social and physical knowledge would be:

1) establish communication skills for things or events visually perceived or experienced through developing visual memory--discrimination-attention and providing words to represent these perceptions;

2) establish communication skills for things or events auditorally perceived or experienced through developing auditory memory--discrimination-attention and providing words to represent these perceptions;

3) establish communication skills for things or events perceived or experienced through developing an awareness of body movement and effective use of the senses of smell, taste, touch and bodily functions. Vocabulary based on these experiences will be provided;

4) establish knowledge of English grammar by teaching English rather than using it to teach concepts;

5) establish social awareness of the communication of social experiences to classmates and adults;

Examples of instructional objectives under representational skills would be:

1) develop the ability to produce a mental image of things and events which are not presently being observed by the child;

2) develop symbolic behavior through make believe activities (broom for a horse) which forms a critical linkage with language behavior (word for a horse);

3) develop symbolic behavior without props (child "gallops" around pretending to ride a horse);

4) develop the ability to communicate effectively and efficiently concerning three dimensional real objects moving to the more difficult task of working with a picture--the real object (representational level);

Examples of instructional objectives under cognitive/logic-mathematical skills would be:

1) sort and group objects into categories and develop verbal and non-verbal comunication for objects classified;

2) sort and group objects in many and caried ways related to the likes and differencs of objects and demonstrate through verbal and non-verbal behavior;

3) to develop logical sequential relationships between sets of objects and demonstrate these relationships through verbal communiation.

Examples of instructional objectives related to self and cultural identity would be:

1) develop a positive self image of self through personal successes in learning routines and social relationships with project peers and adults;
2) develop self motivation and independence and to express needs through verbal and nonverbal communication.
3) develop creativity and take pride in producing varied responses through verbal and nonverbal communications

An example of a goal related to make-believe would be to nurture the youngster's pretend concepts through enactment of dramatic and socio-dramatic play in "free" play settings.

Instructional Techniques

Instructional Techniques identify and describe what teachers and paraprofessionals (i.e., parents, citizen educators) do and use with the bilingual kindergartner (Yawkey & Silver, 1977), to achieve the performance objectives of enhancing proficiency in English languge, cognitive, and self-identity development and learning. **Instructional Techniques**, in addition, show what types of approaches are used by paraprofessionals with parents. In this context, instructional techniques for Project P.I.A.G.E.T. has four over-riding objectives. The objectives are to:

1. enhance the proficiency of the bilingual kindergartners in English language through Center/Classroom and Home Programs;
2. develop intellectual and self-identity growth and learning in the target bilingual populations through Center/Classroom and Home Programs;
3. employ ways of delivering instructional techniques that are based on genuine participation and cooperation between teachers and

paraprofessionals (i.e., parents) through Center/Classrooms and Home Programs (Gordon, 1970).

4. devise and deliver the instructional techniques/methods in ways consistent:

   (a) with the Psychological Foundations Component to maximize the "whats" and "hows" of learning and developmental potential of the target group of bilingual kindergartners; (b) with the results of the needs assessments; and (c) with results from on-going data collection/analysis.

Accordingly, selected instructional techniques (implied from the Psychological Foundations Component together with its respective cognitive interactionist principle) are used in Center/Classroom and Home Programs. They are:

1. Active involvement by manipulating objects and experiencing concrete events are used in developing language repertoires and other concepts in the bilingual kindergartners (Implication derived from the Psychological Foundations Principle 4);
2. On-going diagnosis of the bilingual kindergartner's present level of development and learning of language repertoires and other concepts is used before higher order learning opportunities and experiences are given (Implications derived from Psychological Foundations Principle 3);
3. Meaningful types and kinds of involvement experiences are used in developing language repertoires and other concepts. The meaningful involvement experiences are matched with the current level of language, cognitive and self-identity growth of the bilingual kindergartner in a planned effort to challenge and thereby extend and advance his current level of growth and learning (Implication derived from Psychological Foundations Principles 1 and 2);

4. In developing and learning new concepts, the bilingual kindergartner received feedback from concrete objects and experiences and through adult guidance (Implications derived by Psychological Foundations Principles 1 and 4);
5. In developing and learning new concepts in language, the bilingual kindergartner receives feedback from adults and peers (Implications derived from Psychological Foundations Principles 1 and 6);
6. In developing and learning new concepts, the bilingual kindergartner receives feedback from his own cognitive structure and thought processes and through adult guidance (Implications derived from Psychological Foundations Principles 1 and 5);
7. Bilingual kindergarten children select certain learning activities in which to become involved (Implications derived from Psychological Foundations Principle 5);
8. Bilingual kindergarten children complete certain prescribed learning activities (Implications derived from Psychological Foundations Principles 2, 3, 4, and 6);
9. Bilingual kindergarten children identify felt interests and needs which are gathered from adult observation and used by teachers and paraprofessionals to encourage language repertoires and other concepts (Implications derived from Psychological Foundations Principle 5);
10. Bilingual kindergarten children employ constructivist play actions and activities to encourage language repertoires and other concept development (Implication derived from Psychological Foundations Principle 7);
11. Active involvement in situtations and events; manipulation of objects and concrete experiences are used for language learning and

communication repertoires and as precursors for written language routines (Yawkey & Blohm, 1977, Blohm, & Yawkey, 1976) (Implications derived from Psychological Foundations Principles 1, 2, 3, 4, and 6);

12. Language substituting patterning and drills are used with bilingual kindergarten children to practice and learn language repertoires and other concepts (Yawkey & Villarreal, 1980) Implications derived from Psychological Foundations Principle 6);
13. Replacement patterning and drills are used with bilingual kindergarten children to practice and learn language repertoires and other concepts (Yawkey & Villarreal, 1980) (Implications derived from Psychological Foundations Principle 6);
14. Selective visual attending and questioning are used. They permit the bilingual kindergartner to practice and learn language repertoires and other concepts by physical involvement and action on objects, situations, and events and through adult guidance (Yawkey & Villarreal, 1980);
15. Attending a nonvisual stimuli is used and assists bilingual kindergarten children to develop and use their language repertoires by involvement and actions on objects, situations, and events (Yawkey & Villarreal, 1980) (Implications derived from Psychological Foundations Principle 6);
16. Practice and development of language memory are used through questions about objects, situations, and events experienced. This technique assists retrieval and recall of language repertoires and other concepts (Yawkey & Villarreal, 1980) (Implications derived from Psychological Foundations Principle 6);
17. Directed dialogue is used with the bilingual kindergarten children. It requires the youngster to use oral language to describe events and situations that are about to or have occurred and facilitates language

repertoires and other concepts (Yawkey & Villarreal, 1980) Implications derived from Psychological Foundations Principle 6); and,

18. Employing the technique monitoring of verbal responses is used. It requires bilingual kindergartners to elicit language responses to situations whose truth or falsity can be immediately determined by use of the bilingual preschooler's senses of sight, smell, touch, hearing, and movement (Yawkey & Villarreal, 1980) (Implications derived from Psychological Foundations Principle 6).

The above selected instructional techniques form the primary core of the techniques/strategies or methods that the teachers and paraprofessionals use to work with bilingual kindergarten children and their families. Others were devised for particular needs of the individual youngster as the situations arise and through on-going data collection/analysis. They were found to be especially effective with bilingual and monolingual kindergartners in enhancing their proficiencies in the English language as well as facilitating cognitive and self-identify development and learning (Day & Parker, 1977).

Project P.I.A.G.E.T.'s Use of Current Research

Research results are crucial to the development, implementation and evaluation of Project P.I.A.G.E.T. The Psychological Foundations (page 9), Instructional Techniques (page 15) and Performance Objectives (page 19) are based on research results of Piaget (1969, 1965, 1963, 1962, 1952) and his associates and other researchers such as White (1963), Yawkey and Villarreal (1980), Hornby (1977), Nedler (1977), Tucker (1977) and many others. In addition, the instructional techniques rest on psychological principles of development and learning and their linkages are thoroughly described in Instructional Objectives (page 17). Finally, the evaluation of Project P.I.A.G.E.T. also rests on research studies and results of Rosenshine (1970), Sjogren (1970), Stake (1970), Resnick (1973), Wang (1973) and

others. Complete descriptions of how the research results intersect with and from the basis of Project P.I.A.G.E.T. and its evaluation are described within the above components in the program Narrative.

Replication Plan

The following section on the replication plan for Project P.I.A.G.E.T. provides some background on replication and then explains the program's three stage replication plan. First, the background information follows:

1. Crucial to the replication of Project P.I.A.G.E.T. to new sites is the fact that merely making avaiable curriculum materials and project guidelines for replication purposes causes little of anything new to happen (Yawkey and Silver, 1977). Replication in a Project mode means: (a) making educators aware of the needs and problems of Spanish-speaking children and the Spanish-speaking communities within a sociocultural milieu; (b) establishing a trust and change relationship with the new site; (c) developing their expertise for the replication installation; (d) providing training so that the new site can be nurtured but with the goal of having it assume its own training and instructing; (e) evaluating the quality of the replication at the new site after several ongoing program months; and, (f) providing follow-up training and technical assistance on an "on-call" basis.
2. Implicit within the replication plan for Project P.I.A.G.E.T. is: (a) its genuine concern for a "faithful replication" (Yawkey & Silver, 1977) from the old to a new site--initially and then proceeding to necessary planned variations based upon systematic data collection and analysis; (b) its genuine concern that the replication blend with cultural values within a sociocultural milieu and past experiences of Spanish-speaking populations

who seek to adopt the program; (c) its genuine concern for ease in the planning and replication and the local conditions; and, (c) its genuine concern for relevance of the programming-focus for achieving local objectives.

3. For the three-stage replication plan of Project P.I.A.G.E.T. to be implemented, the program needs to be developed, tested and at minimum internally (and at maximum, externally) validated so that all of its components can be operationalized and implemented at new program sites that desire to achieve these similar results.

In context of the above background, the replication plan for Project P.I.A.G.E.T. is explained. Each of the three stages of the replication model follows.

1. **Stage 1: Awareness Level.** Stage 1 of the replication plan requires initial dissemination of the program. In this respect, State Education Agencies, Community Action Agencies, School District, National Association for Bilingual Education and other bilingual associations and others are contacted and informed about the program. In addition, The Bethlehem (PA) Area School District also has an extensive national and international network to spread information about the program. Second, as a further basis for replication, a three step dissemination model is operationalized. The steps are hierarachically organized on interest level of the prospective client or user for replication.

   At Step 1, and in response for replication information, an informational pamphlet on Project P.I.A.G.E.T. is forwarded. It identifies program goals and outcomes and essentially serves to provide information and create additional awareness and interest. At Step 2, assuming the client wishes more information, a packet is forwarded. This packet contains site information and descriptions of the present

project and specific characteristics required for replication to new sites. In Step 3, and to those who respond for more information, a more detailed packet of information concerning replication is forwarded. It includes cost factors to help potential clients develop budgets for materials, space, and personnel, and description of instruction, training, and management systems. At this stage, a filmstrip accompanies this information that permits some degree of "observability"—of the ongoing program routines in the actual Center/Classroom and Home Programs. The above information is shared in a step-by-step approach to these potential users interested in replication in an effort to make them fully aware of the program, its costs, and general instructional, training, and management components crucial to a "faithful" replication. Also, the information across the above three steps is organized such that it draws them nearer to replication decisions. With the above information shared, the second stage is one of involvement.

2. **Stage 2: Involvement Level.** The purpose of Stage 2 is for the potential client(s) who desire to replicate the program to make a visit to the Bethlehem (PA) sites. As such, it is another level of "observability" before the commitment is made to replicate the program. Further, the initial site visit permits direct observation of its innovative functions in Center/Classroom and Home Programs and provides first hand experiences of the instructional and training materials used for accomplishing its performance objectives. Secondly, the replication plan at this stage calls for simple consulting sessions to discuss the program components after reviewing them in operation. Key aspects basic to a successful replication that are shared include: (a) cost; (b) staff and training personnel; (c) space required; (d) time required to gear up for

the replication; (e) magnitude of the innovation given program results; and, (f) value orientation which deals with cognitive-interactionist philosophy of the program, program performance objectives, and its coherent organization/orientation. Finally, the aspects of commitment to and installation of the replication are described.

3. **Stage 3: Commitment/Installation Level.** The steps crucial to the commitment/installation of the replication are: (a) training of and technical assistance for change agents; (b) program installation; (c) evaluation of the replication; and, (d) follow-up training and technical assistance. Step 1, training of and technical assistance for the change agents involves groundwork for insuring a "faithful" and successful (but not a piecemeal) replication (Yawkey & Silver, 1977) of Project P.I.A.G.E.T. to a new site. Prior to and several months before the actual installment of the replication to the new site, staff training of new personnel at the Bethlehem (PA) sites begins. The new site identifies an "installation" bilingual teacher who receives training at the Bethlehem (PA) sites and helps to get the replication program started. This aspect of change agent networking also provides contact between the Bethlehem (PA) sites and the new site and is extremely critical for successful replications (Yawkey & Silver, 1977). In addition, workshops for the administrator of the new site are also planned and helps him/her take responsibility for training instructional staff and identifying and solving problems of implementation. This time at the Bethlehem (PA) sites also permits the teacher and administrator to brainstorm for solutions to difficulties of implementing the program at the new site and seek assistance from Project P.I.A.G.E.T. staff. Finally, this initial training of and technical assistance for these change agents permit a

tailoring of the replication format to the new site and as well as an identification of what is needed for successful replication, such as materials, training, and technical assistance.

Step 2 is the actual installation of the replication at the new site. Provision is made to continue the staff linkages with continued training and technical assistance given at the new site. Here, the training of additional teaching and paraprofessional staff in the Center/Classroom and paraprofessional staff in the Home Programs for the program replication is undertaken. Differentiated training is employed where administrators receive training for example on leadership skills and the staff, for instance, on instructional procedures and both receive training together on cognitive-interactionist philosophy and underlying rationales basic to the program. Provisions to wean the Bethlehem (PA) sites away from the new site are made and implemented. Step 3 calls for evaluation of the replication. Here, the program is evaluated at the new site to measure the degree of program adherence to the original program sites in Bethlehem (PA). In this evaluation, tailoring and program variations are taken into account.

Step 4 is a follow-up training and technical assistance. Follow-up assistance is provided on an "on-call" basis. In addition, the technical assistance is aimed to helping the staff and administrators continue to use systematic procedures to validate ideas basic to the planned variation to further improve the program at the new site.

Summary

The Center/Classroom Program of Project P.I.A.G.E.T. is a highly individualized child centered approach. In addition it is also seen as a laboratory for parents in learning how to stimulate their children in the appropriate manner for the

development of bilingual language ability. The Center/Classroom Program will be influenced by needs discovered through the Home Based Program. The instructional techniques, use of current research, and replication plan are also valuable aspects of Project P.I.A.G.E.T.

In sum, Project P.I.A.G.E.T. is a systematic model for the acquisition of English and the maintenance of Spanish. It is based on Piagetian principles and contains both home and center programs that compliment and extend each other and the objectives of the schools and Hispanic community.

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Chapter 3

TOWARD DEVELOPING CENTER CURRICULA

In Project P.I.A.G.E.T.

Thomas J. Miller

Introduction

The intent of this paper is to discuss Project P.I.A.G.E.T. curriculum, its development and how it will be utilized as instructional tools. In order to assure that these goals are accomplished, it will be necessary to identify and define knowledge according to Piaget in his theory of cognitive development. Procedural concerns will also be discussed in regard to developing curriculum to the Piagetian framework.

Types of Knowledge According to Piaget

Physical Knowledge. Piaget describes knowledge, not only in regard to its source, but also in the manner in which it is organized. Information becomes knowledge as the learner interacts with his environment and assimilates or takes in information. The primary source of information about the phsycial world comes from the child's sensory impressions or experiences with objects. Information about objects or the physical world are elaborated on and expanded as a result of manipulation, dropping, throwing, rolling, smelling, touching, seeing, hearing, tasting, etc. The combining of these sensory and action potentials provides a rich learning potential for the child. Piaget feels that the child's conceptual growth depends on active involvement with the physical world through the assimilation or taking in of information. It should be noted that the source of physical knowledge is large external to the individual. This means that it becomes available to the child through intentional or unintentional encounters initiated by the child, or, brough by others to the child for him/her to experiment with.

Logico-Mathematical Knowledge. Logico-mathematical knowledge is internal, or from within the individual. Such knowledge is constructed by the child as a result of the ever expanding fund, or accumulation of physical knowledge. In order for physical knowledge to be useful for the child it must be organized in such a way that it is accessible for the purpose of problem solving and efficient interaction within the environment. New information taken in is compared with existing information resulting in the expansion or changing of ideas and concepts. This process is referred to by Piaget as accommodation to the real world. It is felt that the child strives for a balance between assimilation and accommodation. This balance, or equilibration, enables the child to take in information from the physical world, and to organize and comprehend it in relation to already existing concepts, such new knowledge is thus made useful for the child in adapting to the world around him. Strategies used by the child in bringing order to the influx of information is described as follows: (a) classification of information according to the degree of likeness or difference, and, qualities the object or event might have, such as, function, color, shape, source, etc; (b) seriation or the sequential and logical ordering of objects or events as to size, quantity, or quality; (c) spatial relations in regard to body awareness, position direction, and distance in relation to other objects; (d) temporal relations or ordering events along a tie dimension such as the beginning and ending of events, length of time within time periods, and the ordering of events in time. In order to understand object and event relations, the child must act upon the world around him and establish his particular level of adaptation within the logico-mathematical realm.

Social Knowledge. Social knowledge is derived from interaction with others and is therefore external to the child. Rules needed for living, working and playing in varied environments are learned through social transmission. The child is also

provided many opportunities to compare himself with others in the process of evolving a self identity and sense of autonomy. In social situations demanding cooperative behavior the child is encouraged to become less ego-centered and develop an awareness of the other person's point of view or perspective. Most social exchanges with peers in childhood take place in play settings. Types of play requiring social interaction includes socio-dramatic play and games with rules which can be cooperative and competitive in nature. Socio-drama can be described as recreations of events or episodes that have been observed by the child. These plays, so to speak, can be realistic or imaginative in nature. They require the child to assume the role of another and thus provide a vehicle for perspective taking or "standing in someone else's shoes," Games with rules require children to conform to an imposed structure and as such engender the growth of cooperatie behavior. This too encourages perspective taking and also requires a high level of mental alertness and activity. Cooperative games such as Mulberry Bush or London Bridge require imitation and alertness for cues. Competitive games are represented by the following: musical chairs; pin the tail on the donkey; aiming at a target followed by throwing, kicking or pushing; races; Duck, Duck, Goose, etc. Such games encourage the child to: mentally represent objects or events without actually seeing them thus enhancing representational ability, employ impulse control, engage in hypotheses testing through the evaluation of past events and formulation of future predictions. Use of verbal and gestural communication is frequently required as part of play activity. Development of communication ability is an important aspect in the transmission of social knowledge as well as adding to the richness of social interactions.

Representational Knowledge. The ability to mentally represent objects and events which are not physically present is one of the most significant developmental

achievements of the child. Through the representational process the child is able to perform mental operations or mental experiments on a level other than the physical, and in time frames other than the here and now. In order for mental representation to develop the child must be able to visualize objects he/she is not in perceptual contact with. Object permanence is a result of the child's increasing familiarity with the real world, and as a result of his/her physical cause and effect experiments carried out through the sensory-motor period which terminates at approximately two years of age. When object permanence is established the child is capable of creating a mental image of an object or event in its absence. It is important to understand that such representations vary in their level of abstractness or distance from reality. Piaget has outlined three levels of representation: index level, symbol level; and sign level. (See Appendix A, Figure 2 and 3). The following excerpt from The Cognitively Oriented Curriculum by Weikart et al. (1971) provides an easily understood description of these representational levels.

> At the index level the child begins to deal with parts of objects as being representative of the whole, and with certain "reference-giving cues" which can be taken as representative of the objects. The cues the child has to deal with are often marks or sounds which are causally related to the objects and therefore indicative or representative of them. To infer "duck" from duck footprints and "telephone" from the sound of a ringing telephone are examples of representing objects given less than complete physical evidence of their existence or presence.
>
> At the symbol level the child is able to deal with representations of objects that are distinct from the objects. In other words, the representations are not part of, or causally related to, the real objects but exist as separate entities, so that the child must construct a link between the real object and the real object and the representation of it. Examples would be pictures, from the realistic (photographs) to the more abstract (line drawings), and clay models (including those made by the child). Included in this use of the body in representing objects or events (termed "motor encoding"), such as when a child hops like a rabbit or pretends to be a fire engine or makes the sound of a car, and the use of objects to represent other objects (such as a block to represent a car).
>
> The ultimate level in Piaget's outlines of levels of representation is the sign level, or representation through words. While the child is able to use and respond to spoken words at the earlier levels of representations, written words

are the most abstract means of representation; they are a completely arbitrary configuration of marks in a particular shape and arrangement. The ability to represent objects and events at this level, Cognitively Oriented Curriculum, but in developing the child' ability to represent on increasingly abstract planes, the curriculum does provide the prerequisites to this ultimate level. For example, when a specific word such as "duck" is verbalized or written, the child, having gone through all the preceding levels of representation, can mentally construct the concept of duckness so that the word alone evokes vivid and meaningful mental images.

Piaget draws a distinction between performance on the motoric level and verbal performance. Until the child has language, his manipulations of the environment are entirely physical. Language is obviously important in constructing and extending mental representations and Piaget emphasizes its significant role in facilitating the shift to representational thought. However, Piaget also contends that language is neither a necessary prerequisite nor a necessary consequence of the child's ability to create representations of himself and the world and to make "mental experiments," since a certain level of mental representation has to be reached in order to accumulate the fund of "mental pictures" which serve as the initial referents for the development of language. However, once he has acquired language, the child possesses an extremely efficient tool for assimilating and manipulating the environment, because language is such a precise encoder of environmental information (pp. 17-18).

Project P.I.A.G.E.T Curriculum

in Center Programs

I. Format

(A) Project P.I.A.G.E.T. Curricula use of fifteen instructional units.

1. Each unit is introduced by means of a Unit Overview which contains the following sections:

a) value and rational;

b) areas of conceptual development covered by the unit;

c) preperation of classroom for implementing the unit;

d) appendix reference for material testings;

e) oral language practice intended for use with pupils who are nonstandard English users to provide additional language use opportunities.

2. Following the unit overview is a graphic outline of instructional plans contains in each unit broken into six academic areas:
   a) science/social studies
   b) music
   c) language arts
   d) art
   e) mathematics
   f) physical development
3. Following the graphic outline individual instructional plans are presented in outline form as well as descriptive instructions for classroom application.

(B) Project P.I.A.G.E.T. Curricula use some of the selected following.
1. index of skills references to units
2. storytelling rationale and instructions
3. stories: e.g., The Three Little Pigs; The Three Billy Goats Gruff; The Three Bears; The Gingerbread Boy).
4. bibliography containing: stories and poems; books; subject index; films and filmstrips; recordings;
5. index of language development cards
6. songs

II. Units Used in Instruction

(a) Units were selected based on the richness of communication and cognitive content.
1. Units using language arts are:
   I, Me; III, My Community, IV, The Zoo; VII, Birds, Spiders, and Insects; VIII, Land Animals; IX, Transportation; XI, Sea Life; XIII, Our World.

2. Units using mathematics are: III, My Community; IV, The Zoo, VII, Birds, Spiders, and Insects; VIII, Lang Animals; IX, Transportation.
3. Eight (8) units were selected in all and these will comprise the curriculum content for the instructional year.

III. Instructional Planning

1. Activities are built for instruction by Project P.I.A.G.E.T. Instructional Staff and the Center Research Assistant at an upcoming staff meeting.
2. Activities developed will be redefined according to Piaget's knowledge types i.e.,: physical knowledge, logio-mathematical knowledge; social knowledge, representational knowledge.
3. Instructional activities will be planned on a daily basis for center instructional staff based on the content resulting from the activity selection process.
4. Planning organizational aids will include: (a) "Project P.I.A.G.E.T. Daily Activity Plan" which will be used as a general planning guide; (b) "Activity Plan Format" as found following page 8-60 in Chapter 8, "Applications of the Cognitive-Developmental Perspective" descriptions of instructional strategies. (Peters, Neisworth & Yawkey, in press.)
5. Evaluation of individual child performance will be based on observational documentation using the format provided in Chapter 8.

Conclusion

Project P.I.A.G.E.T. seeks outcomes that will prepare participating bilingual children for a successful experience in the regular English language early childhood educational program of the Bethlehem (PA) Area School District. It is hoped that a result of this intervention with these children will be curious learners who have

adequate command of the English language, while they still maintain an awareness and appreciation of their Hispanic cultural heritage. An effort will be made to cooperate and coordinate Center programs with other ongoing educational programs and to welcome inquiries from the Community and other interested parties.

APPENDIX A

PROJECT P.I.A.G.E.T.
DAILY ACTIVITY PLAN

DATE: TEACHER: CENTER:

Heading	General Information	Objectives	Materials	Presentation	Extensions	Evaluation
		PHYSICAL KNOWLEDGE				
8:45-9:23						
		LOGIO-MATHEMATICAL KOWLEDGE				
9:23-10:00						
		SNACK - NUTRITION				
10:00-10:15						
		FREE PLAY				
10:15-10:45						
		SOCIAL KNOWLEDGE				
10:45-11:15						
		REPRESENTATIONAL KNOWLEDGE				
11:15-11:30						

Taken from: Preschool education; Theory and practice. (Peters, Neisworth & Yawkey, 1982, in press.)

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Chapter 4

LEARNING CENTERS FOR CENTER/SCHOOL AND HOME SETTINGS

Fay Ilene Glosenger

Introduction

Young children are active, curious learners who spend much time and energy exploring the environment. They have special interests and need freedom to move, choose activities, and be actively involved. As they puruse interests and curiosity in school and out of school, children gain experiences that build a knowledge base. It's important that teachers and parents guide these experiences and provide an environment that encourages active involvement since learning evolves naturally from the things children do. Through "doing" children learn about themselves, others, and the world.

One way that parents and teachers can provide activities that help meet individual needs and foster learning is through the use of learning centers. The purpose of this paper is to: (a) explain what a learning center is, (b) give a rationale for using centers, and (c) develop a model for building and using learning centers in the school and the home.

What is a Learning Center

A learning center is "a collection of activities developed around a topic, theme, skill or subject...that provides students with activities at varying levels of difficulty and complexity" (Kaplan, et al., 1975, p. 12). The center should be planned around skill and interest areas of the child. It should allow for active involvement and be motivating and fun. Centers may be used on a scheduled or self-selected basis. Most learning centers provide feedback to the child, and often they act as teachers. They can be designed to provide practice, reinforce skills, or teach new skills. Some activities are designed for use by individuals while some call for

small group activity. The caregiver's style as well as the children's needs will determine exactly how a center is used.

Why Use Centers?

Learning centers promote exploration and discovery. They provide a means for children to satisfy curiosity, learn new things, and practice skills. Different learning styles and individual needs can be met through the use of centers. Children learn to make choices, work independenty or in small groups, cooperate, and work and play without constant teacher direction.

The learning center approach also frees the teacher to work with individuals and small groups. Also, parents can provide activities that constructively occupy their children's time. As children work on center activities, caregivers can observe and gather information about work habits and skills.

Learning centers can be used to promote growth in any area. They can become the core of an open education program or be a strong addition to any curriculum approach.

Although the learning center functions as a teacher, it does not replace the teacher or parent. The caregiver must construct the center and monitor its use.

How Do You Make And Use a Center?

There are 7 main steps in building a learning center: (a) select objectives, (b) plan activities, (c) gather materials, (d) construct the center, (e) provide clear directions, (f) provide for feedback, and (g) develop a record keeping system.

Step 1: Select Objectives. First you need to choose a focus for the center. You may want to choose a unit topic, a subject of interest to the child, or a skill area. It's important that you identify specific behaviors that you want the child to demonstrate. For example, you may want your child to be able to choose clothing appropriate for different kinds of weather, or in school you may be working on a unit

on the seasons and want the children to distinguish seasonal characteristics. With his as a focus, you are ready to proceed to Step 2.

Step 2: Plan Activities. Now you must select and plan specific activities that will meet the objectives in Step 1. It's good to provide several activities that address the same objective. This gives kids a chance to choose and provides more practice on a given skill. Try to select activities that are fun, call for active involvement and manipulation, and provide reinforcement or practice in related developmental areas. For example, you can use games, cut-paste activities, models, puzzles, tape recorders, art ideas, sorting games, stories, matching objects, worksheets, beads blocks, sand, water, etc. Many activities can be home-made. You can also take ideas from workbooks and coloring books.

It is a good idea to sketch out a plan of your activities at this point. An activity designed for the previous focus follows:

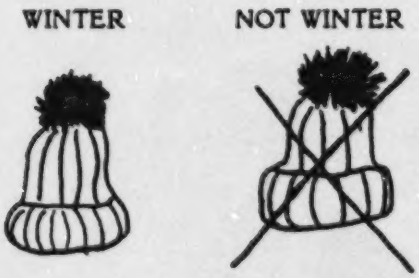

Figure 1 - Sorting

The child will sort pictures into piles of those things that pertain to winter and those which do not.

Step 3: Gather Materials. In this step you simply gather all the materials that you need to make the activities as well as all the materials the child will need to carry out the activities. You may need poster board, boxes, cans, magazines, books, blocks, etc. Get all the supplies you'll need. Shoe boxes and coffee cans are great for storing activities. You'll need to consider space for display of centers as well as storage when centers are finished.

It's good to have all student supplies right at the center. This facilitates management when the center is being used.

Step 4: Construct the Center. Now you are ready to put all of the activities and materials together. How you actually display the center will depend on space available and intended use. You need to select a space in the classroom or at home where you can set up the activities after you've put them together. You may use peg boards, boxes, shelves, poster board, tablecloths fold up, bulletin boards, plastic bins, etc. At home you may have a special room or place in a room where centers can be stored.

It's very important that the activities are readily accessible to the child. If he/she has to hunt for the center or go to a lot of effort to get it, probably the center will not be used too much. As you put your center together, make sure that it is colorful and attractive, something a child would like and want to use.

Step 5: Provide Directions. You'll need to clearly separate and label the activities at your center. Also, place signs with simple directions at each station. Even if your child is a nonreader, it is good to have a directions card. You can use pictures and symbols with the words. As you explain the directions to the child, point to the words on the direction card. This will help build a readiness for reading. Also, when you get the center out at a later date, the card will refresh your memory.

Children will need directions about using the materials and the center in general. They need to know how to do the activity, but they also need to know when they can use it and how many people can use the center at one time.

This is especially important in the classroom. You'll need to establish a system for managing center use. This may be done with signs at each station: "2 may play here," etc. Or, some teachers prefer to have necklaces

coded for each station. Then the child must have the appropriate necklace to go to the center. Some teachers simply put the given amount of chairs at each station. With young children, it's important not to expect them to remember. Put up a reminder.

Step 6: Provide Feedback. Make sure that you try to make your activities as self-correcting as possible. Doing the activity should provide feedback to the child, or you should provide a means for checking the activity when it is finished. If you provide a way for the child to check his/her own work, then feedback will be quicker. This also allows you to be working with another child. For example, many activities can be color coded or picture coded on the back. Some things like puzzles will not work unless completed correctly.

The activity discussed earlier can be made self-correcting by placing the same winter symbol - - on the back of all winter pictures and the symbol crossed out on the non-winter - . You could also just use colored dots on the back. In this way you would use the pictures for another center at a later date.

Step 7: Develop a Record Keeping System. For classrooms especially, you'll want a way to check on the students' progress on the center. You can make a chart with names down the side and activities numbered or picture coded across the top. If you laminate this chart, you can use it over again. Have students check off their names after they complete an activity. You can make certain activities mandatory by placing a special code by the activity and allow others to be optional.

Names	1	2	3
Susie	X		
Debbie		X	
Juan			
Maria			
Sal			
Roger			

Figure 2 - Record Keeping

This record keeping system allows you to tell at a glance how students are progressing. It also helps students see how they are doing, and gives them responsibility in checking off work, and builds beginning graphing skills.

In the home, parents may want to keep a small chart and allow the child to check off activities that are completed. You may want to give some reinforcement or special treat for completed centers.

Summary

Centers can be used in the home and school to promote independence, exploration, and learning. The steps in building and using centers are applicable to both settings. Centers should provide learning activities that provide fun and build skills. Activities can be made, or purchased materials can be used in centers. By providing active experiences with the learning centers, parents and teachers can foster natural learning processes. By "doing" children learn about themselves, others, and the world. Parents and teachers play a big part in helping this happen.

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Chapter 5

Learning to Read in a Second Language: Implications for Cultural Adjustment

Joseph C. Prewitt-Diaz

Introduction

The purpose of this paper is to share with you some thoughts and experiences in the use of reading as a tool for cultural adjustment. Reading is defined from a psychomotor perspective as the movement of the eyes from left to right and from top to bottom of a page; from a linguistic perspective reading serves the purpose of enhancing vocabulary; and from a cognitive perspective reading serves as the tool that is used to comprehend the thought process of people around us and their environment.

On the other hand cultural adjustment may be described as the process whereby children begin to interact with the environment. That is, children begin to search for categories of knowledge that significant adults have and use in organizing their behavior. The children that are able to imitate and to adjust their behavior and thoughts to their environment, are perceived as well adjusted.

Culture is knowledge organized in such a way that the members of a society may find it useful and meaningful. The culture of a society is realized, that is, made apparent, in the behavior of its members as evidenced in the themes expressed through writing. A writer makes available to the reading information that can be shared, understood, interpreted, or in some fashion made meaningful.

In effect the first contact that members from one linguistic and cultural group may have with another is through literature. The way that children in the public school system of Puerto Rico may learn about the United States, Latin America, or Africa is through reading.

Dimensions of Reading

Smith (1980) suggests that the process of reading involves four simultaneously operating and processing levels: perceptual, psycholinguistic, cognitive and affective. The reader must be able to physically (1) perceive the written symbol, (2) must be able to decode the symbol into linguistic sense, (3) refer the linguistic units to his/her cognitive base for meaning or "meaning inferring" and affective associations. The result of transition from written symbol to psychological meaning. Reading without meaning is not reading.

Reading as Information Processing

Carroll (1964) defined reading as the activity of reconstructing by the reader of an oral message graphically encoded by the writer. This reconstruction then generates meaning in the same way that a comparable spoken message would be--by processing with the reader's already functioning linguistic skills.

Goodman (1966) posited the oral reconstruction prior to linguistic processing. However, Goodman expands the decoding process into processing via three distinct systems: graphophonic, syntactic, and semantic. Goodman additionally proposes a hypothesis testing stage where the reader is processing information and making decisions on meaning based upon a comparison of the agreement of the text with linguistic expectations established by the implicit knowledge of the language.

Ruddell (1969) shows reading as a cognitive process which gathers information and actively tests the reader's hypothesis about what the reader expects. I have in the past indicated that all readers would read material in accordance with such a model and consequently would, at a certain point, guess wrong. Students learning to read in a second language would not recover from wrong guesses or miscues in their overall reading performance. They would instead fall into a vicious cycle of previous wrong information leading to later wrong predictions.

Students who learned to read in the first language would use a minimum of text sampling to derive meaning by using words, language, and reading knowledge. Conversely, in order to derive the same amount of meanings, students learning to read in the second language would probably have to sample much more from the text. Smith (1973) suggests that word by word reading would prove detrimental because no meaningful relationship would be established between words. One would be forgotten before the next word was built, thus no comprehension would be possible.

Pupils who are beginning to read in their dominant language presumably have all the skills prerequisite to the task, including not only a rather complete command of the grammar and lexicon but also such skills as making comparisons, categorization, and rule-formation through hypothesis testing. The pupil beginning to read in a second language usually does not have these skills--at least not to the same degree. Chomsky (1975) suggests that in languages which use an alphabetic system there is a high degree of predictablity between graphemes and phonemes. However, this is not useful in processing until and unless the reader has a high degree of command over both phonology and lexicon of the language. The second language reader, seems doomed to use the strategies which are known to retard and inhibit the beginning native-speaking readers from achieving their potential.

Processing in a Second Languge

Cziko (1978) reports that reading emphasizes that the reader uses contextual information more than visual information from written material. The contextual information used by a reader is of three types: syntactic, semantic, and discourse.

McNamara (1970) hypothesized that the slower rate of reading in a second language does not permit the readers time to think about what they have read before moving on to the next segment of the text. The problem in reading the

second language centers around an inadequate grasp of vocabulary, phrases, and syntactic structures.

Overall it seems that research (Cziko, 1978; Evans, 1977; Gomez, 1976; Hudelson Lopez, 1975; and McNamara 1970) done with bilinguals does indeed support the information processing model of reading. The disparity between reading skills in both languages or between bilingual learner's performance and the accepted form for literature monolinguals is then the measure of the success (or lack of success) of any program.

Second language reading instruction is in a state of flux. Apparently there is, indeed, a transfer of processing strategies once the reader is past a certain point in the acquisition of the second language. This proficiency level has not been established. Time spend on improving first language reading speed and comprehension has a double reward. The intensive/extensive discussion is not yet settled although motivation provided by texts the learner feels of interest apparently can overcome some skills deficiencies. Considerably more and better research needs to be done in this area.

Migration, Adaptation, and Resettlement

One of the problems which is currently being confronted by the Department of Public Instruction of Puerto Rico is the return migrant (Charneco, 1981). Kavestky, 1978; Prewitt Diaz, 1981; Ramos Perea, 1972, 1978; and Seilhamer and Prewitt Diaz, 1982 have studied the educational problems of the migrant child in Puerto Rico and Pennsylvania. There are many issues that migrant populations are confronted with, such as: language and cultural roles, the need to identify a support system, personal and socioeconomic variables, economic adaptation and educational adaptation. In this section let us explore some of the needs of the "Neoricans" as return migrant children are called in Puerto Rico.

When a non-native Puerto Rican child enters Puerto Rican schools, that child is confronted with at least three dimensions of intercultural competence that s/he must understand and master. These dimensions are (1) ability to deal with psychological stress, (2) ability to communicate effectively, and (3) ability to estabish interpersonal relations. The coping skills for children in diverse environments are quite new. Therefore children find themselves performing familiar tasks in a modified style. There are often a number of themes or modes of interaction in a culture which are common to a wide range of situations and therefore the proper use must be learned.

The difficulties of social interaction and communication arise in several main areas (Arglye, 1982): language, non-verbal communications, rules of social situations, social relationships, motivation, and concepts and ideologies. Three basic areas have been found to be successful in the process of adjustment, especially in combination. These include language-learning, educational methods, and reading.

Linguistic and Cultural Adjustment

Acquiring proficiency in the parents mother tongue (the child's L2: Spanish) is one of the first requirements in the process of cultural adjustment. Learning a new language means learning to be a part of a new social system, and this in turn may mean having to relinquish elements. Their coping patterns have been learned within previous cultural context and, adaptive strategies which are suitable in a home environment may not be appropriate in a new environment.

Belief systems, values, and cultural roots run very deep. This should not be surprising when it is considered that the cultural roots of people have evolved for centuries. Whether addressed explicitly or implicitly, the importance of culture as a variable in adjustment and resettlment permeates the whole process. It is in this process that reading materials that provide knowledge about history and culture

should be the core of any program for return migrant children that are involved in a dual language learning process. Literacy as a cultural adaptive tool must be emphasized.

Educational Adaption

Education for children ranks very high among resettlement goals of the return migrant families, so that schools become for them a very important resource. Because of language and cultural differences, however, some return migrant children find it extremely difficult to take advantage of educational opportunities.

Language learning and cultural adjustment are processes which are inextricably interwoven. The school experience of return migrants (Underhill, 1981) indicates that adjustment to the educational system by return migrant children often brings on conflicts in the home between the younger and the older generations. In the current educational programs the return migrant children experiences in the school must be linked with family experiences in the home and vice-versa. In the final analysis, successful educational and cultural adjustment means that children learn how to live comfortably between two cultures, the old and the new.

Reading as a Tool for Adjustment

A review of the literature (Anderson, 1976; Ebel, 1978; Lado, 1977; Mallett, 1977; and Thonis, 1970) has revealed that there are fundamentally two approaches to classroom practices for teaching reading to dual language (bilingual) learners. The most widely used approach is to use methods and techiques which have proven successful with monolingual readers. The second approach is to adopt techniques used by foreign language educators.

In terms of school programs for the return migrant children (LEP or LSP) there is the added dimension of the second language. Approaches to teach reading to this population separate into two basic thrusts: (1) treating the children essentially as if

they were monolingual English/Spanish speakers, and (2) teaching reading as one of several components of the school program. In the first approach the texts and techniques are transferred from the monolingual classroom with minor modification. In the second there is considerable attention to developing an oral language competency to which literacy is being added (Smith, 1980). Teaching writing skills at the same time as reading seems to have an influence on reading achievement (Esterellas and Regan, 1966; Paine, 1974; and Rodriguez, 1969).

Smith (1980) reports that due to the concurrent teaching of both the second language and second language literacy in many bilingual programs, the language experience approach is often used for an initial introduction to reading. In general the best rationale for this technique is that it allows the learner (1) to see the direct connection between oral speech and written symbols and that (2) it introduces reading within a context of familiar experiences, and vocabulary structures. This writer would recommend this approach in addition to the basal approach as a method of teaching how to read in a second language as an activity of cultural adjustment.

Conclusion

In the sense that a person's home language, the mother tongue (L1), is absolutely more a part of him/her than any other human characteristic, it seems almost inhuman to deny fundamental education through that medium. As a "human right", as a medium of cultural heritage, and expression, the mother tongue seems to have both a right to exist and a right to be considered important.

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Chapter 6

Educational Alternatives For Recent-Arrival Puerto Rican Students

Joseph O. Prewitt Diaz

Introduction

The purpose of this paper is twofold. The first is to explore the educational variables affecting the learning process of Puerto Rican pupils. The second is to examine and suggest educational programs which have successfully aided this student population with the cultural adjustment demanded of any group forced to cope with the difficulties of communicating in a second language--the emotions, facts, values, and beliefs. While the first issue is unique to Puerto Rican children, the latter is common to any population of children with limited English proficiency (LEP). The programs suggested in this paper are useful with any students confronting similar difficulties.

Cultural Adjustment

Schools in the United States have become the vehicle for fitting millions of immigrants into this country. There are approximately 3.6 million limited English proficiency (LEP) chidlren in the United States (Federal Register, August 5, 1980). Many of these are the children of Puerto Rican migrants/remigrants who are American citizens and travel back and forth from the island of Puerto Rico to the mainland at will. The children of this migrant population are in a constant process of linguistic, psychological, and physical adjustment.

The school systems, both on the mainland and the island, are ill-equipped to deal with the adjustment problem on the migrant/remigrant Puerto Rican children. This section will discuss the three major variables that affect the cultural adjustment of Puerto Rican children: 1) migration/remigration; 2) reading as a

process of second language learning; and 3) attitudes toward second language learning and self-esteem.

Migration/Remigration

The first problem is that the constant migration/remigration process has created a generation of students with the same cultural roots but with different cultural patterns (Nogueras and Prewitt Diaz, 1981). These pupils find themselves living and communicating in two different institutions, the home and the school, which are superimposed on two different cultural ways of living, learning, and earning. The inability to integrate and internalize the dual environment often causes the pupil to behave in ways traditionally associated with symptoms of emotional instability.

A pupil is considered maladjusted when her/his behavior is significantly different from the expectations of others (Stainback and Stainback, 1980). There are two considerations which should be kept in mind when determining whether migrant/remigrant pupil's behavior is considered maladjusted. First, expectations vary among different social and cultural groups. A particular behavior in one group may be considered acceptable, while in another group the same behavior might be considered unacceptable.

Secondly, the age of the pupil displaying the behavior(s) has an influence on whether or not the behavior is labeled as maladjusted. One of the discrepancies most frequently mentioned between Puerto Rican pupils and Anglo teachers is that when Puerto Rican children are reprimanded they tend to lower their eyes as a symbol of respect. The teacher might find this action to be immature, since on the mainland the same behavior expresses excessive modesty and fear of adults at the age of two or three. In other words, a behavior that might be viewed as normal at one age in a cultural group may be designated maladaptive in another cultural group.

Condon, Peters, and Sueiro-Ross (1979) point out that an unacceptably large number of Puerto Rican pupils have been categorized as anti-social, aggressive, withdrawn, anxious, and helpless. These pupils have been diagnosed as maladjusted or behaviorally disordered and placed in special classes. The hidden factor which causes many of these pupils to temporarily exhibit such behaviors as withdrawal, poor academic achievement, aggression, and helplessness is migration/remigration. Most schools do not have adequate programs to help the pupils in the adjustment process, and the majority of the parents lack the skills needed to help their children.

There are factors which must be considered when dealing with recently arrived Puerto Rican pupils. These factors are as follows: (1) the cultural experience, including norms and values on the mainland (the extent to which the child has undergone socialization); (2) the parents' expectations (hopes and fears) for the child; and (3) the economic situation of the parents as projected to the child.

Reading as a process of second language learning.

The most serious bilingual education problem is that pupils fall behind in their acquisition of content area skills (i.e., social studies or science) because they are attending classes while still learning the language used to teach those classes. Though it is natural for linguistically different pupils to exhibit such a lag as they learn English, minimizing this lag is very important. Often, these pupils have been identified as having deficiencies which can eventually lead to placement in special education classes. In districts where bilingual education programs do not exist, these pupils are often placed in remedial reading programs.

Reading, a major tool in the acquisition of those other skills, presents problems for those who are learning to read a second language. Skinner (1957) explained the natural process of learning to read as a stimulus-response reaction. His theory claimed that pupils first master the associations of single sounds and the

letters necessary for the expression of single "words." Later, pupils face the task of further combining the initial words to form more complete thoughts, utterances, and sentences. Pupils' progress when learning to read paralels their increasing vocabulary as well as their increasing verbal skills.

However, for the older pupil who is learning a second language, learning is not natural or intuitive as a child's stimulus-response learning. For the older pupils, the language learning process is a structured analysis of the universe, not just a list of responses. The pupil learning to read a second language must construct, in a new language, and this involves more than merely collecting a random of infinitive number of words (Coady, 1979). This process of learning to read involves both memory and construtive thinking.

Goodman (1971) described reading as a process during which the pupil works to decode a written message. This decoding is a circular process in which the pupils sample various ideas and meanings; predicts, or guesses at, not only words and so forth, but the direction of the reading's content; tests, or compares, their own translation with previous translations in order to test their accuracy; and affirms that the translation thay have decoded is in agreement with previous knowledge of the reading. At this point, the pupil begins the cycle of sampling (Coady, 1979, p. 5).

Goodman also refers to learning to read in a second language as a guessing game, directly influenced by pupil's native language ability as well as their way of thinking. Goodman indicates that all pupils do, at times, guess incorrectly. The effects of wrong guessing vary from unimportant to serious. It is possible for children learning to read in a second language do not recover from wrong guesses, and as a result, these pupils could fall into a vicious cycle in which wrong guesses, thus incorrect information, lead to incorrect predictions.

Children who learn to read in a first language would have little trouble visualizing images in order to derive the meaning by using words, language, and reading knowledge. Conversely pupils learning to read in a second language probably have to work much harder in order to visualize and comprehend the content of a text. Smith (1973) argued that letter-by-letter or word-by-word reading would be harmful because no meaningful relationship would be established between words. One word would be forgotten before the next was built; thus no comprehension would be possible.

Coady (1979) indicates that reading comprehension resulted from the combined influence of three factors: higher level conceptual abilities, background knowledge, and process strategies. Conceptual abilities are important in reading comprehension. The typical reader acquires skills of reading by moving from concrete strategies, such as using pictures or objects, to more abstract strategies, such as reading for meaning.

Furthermore, Yorio (1971) claimed that difficulty in learning to read a second language could basically be traced to lack of knowledge of this language. Also important was the fact that, at all levels of ability and at all times, there was interference of the native language (p. 108). Yorio pointed out that for the second language learned, the prediction of future cues is restricted by imperfect knowledge of the language and sometimes the world that language describes. Because learning a second language requires recall of unfamiliar cues, a pupil's memory span is very short; therefore, the pupil easily forgets the cues previously stored. These two factors make associations insecure slow and difficult.

Allen (1973) found that the number of eye fixations and regressions does not differ between native language readers and those learning to read in a second language. However, differences are found in the duration of the fixation.

Apparently, second language learners do not extract large number of samples, clear visual images, from the text. As a result, they spend more time working on a sampling or reconstrucing the text. Therefore, a comprehension loss caused by a poor use of process strategies seems to occur.

Additionally, Kolers (1972) found that while reading aloud, bilinguals would substitute an equivalent word in the other language when misreading and would not correct such substitution. It appears that what was stored in memory was meaning, not the words as defined by a particular language.

Coady (1979) points out an additional way in which the process of learning to read a second language differs from learning to read a first language. There is the fact that a great deal of the ability to read transfers automatically.

The Puerto Rican pupils who have developed learning skills in their native language should be ready to transfer the skills when reading in the second language (Mackey, Barkman, and Jordan, 1979). A problem arises for the children who do not have oral English skills at least equal to the desired reading skill level. Reading comprehension depends on understanding which in turn, depends upon experience. In order for pupils to understand a reading passage in English, they must first be able to relate to the topics discussed in the text by drawing from experiences they have had.

In sum, reading comprehension is often defined as obtaining meaning in a language through its written representation. The meaning obtained from a written passage is dependent upon various thought processes because reading involves thought as a vehicle of complex thinking (Coady, 1979).

Attitudes toward second language learning and self-esteem.

The importance of self-esteem to academic success had been clearly established within educational psychology. Recent research in the areas of self-

esteem and bilingual education indicates that bilingual education programs enhance the self-esteem of pupils.

Coopersmith (1967) identifies the role of self-esteem as the evaluative attitudes toward self. Coopersmith suggests that persons with low self-esteem are less capable to resisting pressures to conform, while persons with high self-esteem are more likely to assume an active role in social groups and express views frequently and more effectively. Therefore, it is possible that children with high self-esteem will be better adapted to the school setting and learn the second language faster than those lacking a developed self-esteem.

The process of learning a second language is also affected by motivational variables, one of which is the attitude toward the language to be learned. Gardner and Lambert (1972, p. 226-227), reported that adults who are dissatisfied with positions within their own cultural group tend to learn rapidly another language which allows them to become members of a new group. In addition, Tang (1972) found significant interactions between methods of teaching second language reading and the attitudes of learners toward their language as well as the language to be learned.

The function of self-esteem is important in that it seems to explain why some pupils are more successful in grasping a second language than others. It further explains why some pupils do not integrate into the mainstream community as quicky as others. Lambert (1967) suggests that once a pupil formulates a positive attitude toward learning a second language, self-esteem increases and the student tends to succeed.

Of equal importance to the development of self-esteem in bilingual programs is the need for second language learning to reflect the perceptual development of pupils. In particular, recent arrivals from Puerto Rico who enter mainland schools

possess varied learning skills. More importantly, all their learning abilities were developed from within a Spanish/Puerto Rican socio-cultural-linguistic framework. When reading development is arrested during intense sound language learning the pupils often suffer from a loss of self-esteem. Prewitt Diaz (1979) found that this results in cultural behavior conflicts which often cause pupils to drop out of school. The result is a large number of adults who never develop sufficient abilities in either language and remain unable to attain successul achievement within the mainstream of society.

Educational Alternatives Assisting the Puerto Rican Pupils to Learn in Two Languages

The following section discusses some alternative programs for pupils. The two most important factors when dealing with pupils have been identified as language and cultural adjustment. Public schools have traditionally assumed that the school's responsibility is to teach English to the pupil as soon as possible. The question of cultural adjustment is usually not dealt with until the pupil begins to exhibit negative behavior in the classroom.

In the following pages a series of educational programs designed to help the Puerto Rican pupils develop the second language and perceive themselves positively is suggested.

The New Arrival Center (NAC)

The NAC is part of a bilingual program in a large city in the Northeast. Its primary responsiblity is to serve as an intake unit for LEP pupils entering the school system from Puerto Rico, Portugal, Italy, and Poland.

The Center is staffed by a Team Leader (Reading Teacher), a Bilingual Special Education teacher, and a Bilingual tutor. Several other persons, a School Psychologist, Guidance Counselor, a Social Worker, and a Nurse, are attached to the NAC on a part-time basis.

The aim of the NAC is to mainstream the pupils, so there is an open policy. The Center is designed to provide supportive services to the LEP pupils entering the school system for the first time. The pupils are tested for language dominance in English and their native language, screened by the school nurse and the NAC staff. An Individual Educational Program (IEP) is then formulated in order to satisfy the specific needs of the pupils. Once the intake process is completed, the pupil is assigned to a unit within the bilingual program. Another role of the NAC is to serve as a skill development center for LEP pupils in the areas of first and second language development as well as math computation. The pupil may participate in the NAC anywhere from one to three periods a day, five days a week, for as long as one year. The pupil's progress determines the points and time when he/she will be placed into the regular school program.

The room is set up so that there is a number of learning centers. The learning centers are decorated with pictures. The words, printed in colors that symbolize pronunciation, are attached to the pictures. There are maps of Italy and Portugal, as well as pictures and stories about famous Puerto Rican Americans. In the learning centers, the pupils practice listening and speaking skills with others who are at the same level and with teachers who themselves migrated to the United States. After a few months, the pupils feel more confident. They begin to do their homework, begin even to like the school and perhaps the city.

The Bilingual Language Development Center (BLDC)

The purpose of this program is to help bilingual pupils develop reading skills in order to enable them to function in the subject areas, as well as to help them find pleasure in reading. A second goal is to present, and to remediate where necessary, linguistic difficulties interferring with correct goal expression in the first and the second language.

Designed to implement an educational program which would provide more alternatives, the BLDC was responsible to each pupil's needs, capabilities, interests, and learning style. Two clusters (English and Spanish) were organized within the Center. In the English cluster, instruction was provided in the following areas: communication skills (reading and language arts) and social studies. The pupils took mathematics and science in the regular school program.

The Spanish cluster provided services predominantly to pupils planning to return to Puerto Rico. Three native-speaking teachers helped the Puerto Rican pupils to adjust to a new learning environment. Instruction was provided in reading and language arts, ESL, and social studies. These classes were taught in both Spanish and English thus allowing the pupils to develop academically while learning English. Additionally, pupils were required to take mathematics and science in the regular school program.

In an attempt to create a learning environment where success was possible for all pupils, a no-failure instruction program was instituted, dividing the school year into nine cycles. Each cycle contained the following elements: diagnostic teaching, placement, prescription, instruction, and evaluation. When an instruction unit was completed, the pupil's work was evaluated and the percentage of mastery determined. After the pupils reached a mastery level of 90 percent, they were allowed to proceed to the next instructional unit. However, if the pupil had difficulty grasping certain topics, an individualized program was prescribed by the teacher. Consequently, the pupil was again re-cycled through the material until reaching an acceptable level of achievement.

Saturday Reading Clinic

The Saturday Reading Clinic was operated as an adjunct to an instructional component in the school or in cooperation with a Reading Department of a local

college. The clinic was operated in a store front in the target community so as to facilitate participation of the LEP pupils. The clinic was operated by a Reading Teacher, a Reading Consultant, and 5 to 15 graduate students. This clinic would provide services to pupils with severe reading deficiencies who were referred by the school. One such clinic in Hartford, Connecticut reported that the activity had been highly successful for students attending reguarly showed a marked improvement in reading (Prewitt, 1979).

The Counseling Center

The Counseling Center located in the Hartford Public High School was staffed by two teacher/counselors one of whom is bilingual. The primary responsibility of the teacher/counselors was to assist pupils in solving school-related problems. Through individual and group contacts, observation consultation, and the use of cumulative records, counselors were able to assist pupils, teachers, and parents in regard to future planning.

At the Counseling Center the teacher/counselor became acquainted with new arrivals and the first lessons in the second language began. During each lesson the pupils sat in a circle and were instructed to communicate with one another on any subejcts and in any sequence they chose. They initiated the conversation in their native language. The teacher/counselor who sat outside the group translated their conversation in English. Then the pupils repeated the same conversation in the second language.

A tape recorder was used to record the conversation of the pupils in both Spanish and English. This kind of exercise increases the pupils' new identity in the second language and heightens the role of the teacher. Pupils receive warm gestures of approval. The strength of this method is that it deals with both cognitive and affective outcomes.

The Silent Way Laboratory (Gategno, 1971)

The Silent Way Laboratory was housed in the Ann Street Bilingual School in Hartford, Connecticut. The laboratory designed by Gategno was provided for fifth and sixth graders recently arrived from Puerto Rico. The foremost principle of Gategno's method is respect for the pupils' capacity to work out language problems and recall information on their own with no verbalization and minimal help from the teacher. The rationale behind this method is that whatever the mind produces is psychologically correct, though perhaps out of tune socially at the outset.

Essentially the only subjects used in the laboratory lessons are colored wooden rods of various lengths. These are used not simply to illustrate spatial realtionships and related prepositions, but initially introduce language aspects ranging from comparisons to tense, the conditional, and the subjunctive. Phonic charts utilize standard spelling and identify identical sounds through color coding. Wall charts contain the words that are introduced--initially 28. The focus is on melody and structure. By the time the focus shifts to vocabulary acquisition, students have acquired four hundred words.

Finally, the time had come for extensive vocabulary acquisition in clusters of related words. Specifically prepared drawings and pictures, plus Silent Way worksheets, were utilized. The latter contained miniature pictures that enabled the pupils to label the words which they were interested in. Other materials used include controlled readers, anthologies focusing on contrasting styles of writing and films.

Conclusion

What is the significant of this body of knowledge for bilingual education? Quality American educational programs were designed to develop the learning abilities of mainstreamed students with simultaneous development of aural-oral,

reading, and written English language skills. Quality educational programs in Puerto Rico do likewise. Additionally, quality reading programs, in either language and culture, are based upon the principles and knowledge of cognitive development in children through adolescence. However, numerous model bilingual education programs, designed and implemented for a limited number of years, may, in fact, have limited the educational development of Puerto Rican pupils.

Bilingual educators must be well-grounded in cognitive development theory and practice and make every effort to integrate the elements throughout bilingual programs. The elements of cognitive development are best learned in the dominant language of the student, the language in which the student thinks. in other words, to get students reading Spanish, speaking English, learning social studies and science information and facts, and math skills, educators must be as sure that the pupils learn to classify, form concepts, associate, order, experiment with the hypothetical, differentiate, question, and evaluate in the native language—before the transfer occurs into the second language.

It is ironic that at the precise time of the greatest cognitive maturation during preadolescence, only a few programs allow Puerto Rican pupils to develop thinking abilities to the level approaching adulthood. Along with the many physical, social, and emotional conflicts taking place during preadolescence, Puerto Rican pupils are asked to stop development of thinking abilities in Spanish and, instead, concentrate on intensive English as a second language instruction. In addition, due to limited second language skills, the switch also requires the pupils to operate at a lower cognitive level in English. The result is that although increasing numbers of Puerto Rican adults can read, they are thinking on a sixth, seventh, or eighth grade level in Spanish and at a lower, or at mosts equivalent, level in English. They cannot compete with English-speaking adults in today's complex society either on the mainland or in Puerto Rico, their homeland.

It is suggested that only bilingual programs designed to develop the thinking abilities or Puerto Rican pupils in the nature "thinking" language would be able to develop adults equipped to compete in the world of work. Thought development needs to take place only once, in one language. Once pupils have mastered Spanish communication skills, they will be able to transfer their thinking abilities into the second language with a minimum of difficulty.

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Summary and Discussion

The world of bilingual education is quicky changing as more research studies are generated and their applications to practical settings in bilingual classrooms and homes are employed, implemented and evaluated. In this context, collaborative efforts between agencies school districts and institutions of higher education have proven successful in arresting and solving the problems associated with the bilingual children and their families with limited English proficiencies. Said differently, greater cooperative and systematic planning between institutions including the home marshalls more resources for helping to solve problems fundamental to bilingual education and both bilingual and the monolingual communities, thus, children, cooperating agencies and society in general benefit. These benefits centering on planned cooperative efforts are summarized below in each of the articles comprising this volume.

The Truebloods describe and illustrate a Community Based Education model derived from experience in developing, implementing, and evaluating it through the Penn State Teacher Corps and have applied it to bilingual education program. The key elements of the Community Based Education model are: (a) community, (b) education; and, (c) collaboration. The community element helps to identify and solve common problems associated with bilingual education through mutual interaction on purposes, responsibilities and interests. The education element basic to the model focuses on learning across the life span. It concerns what bilingual programs teach for life long learning and in assisting individuals to acquire skills and resources needed in present and future living. The collaborative element requires two-way forms of communication between groups in developing sound and effective

biingual education programs. The Community Based Education model can form the foundation for developing, implementing and evaluating sound bilingual education programming.

Martinez, Miller and Yawkey describe the collaborative efforts between a bilingual school district and institution of higher education to benefit children and their families in and outside of school settings. They have outlined the "whats" and "hows" of effective bilingual programming for kindergarten classrooms and have explained plans for replication of Project P.I.A.G.E.T. to other bilingual communities through a three-step replication process. Collaborative efforts can be used to solve cognitive, social, and emotional self-concept problems of young children and enhance attitudes of their parents toward the community, school and society.

Martinez outlines the basic "whats" and "hows" of effectively working with parents in home settings. The five-point home model called the Home Learning Cycle aims at enhancing the contributions bilingual parents can make in teaching their children in home settings and showing how Project P.I.A.G.E.T. parents as paid paraprofessionals can work with bilingual parents in their homes.

Miller explains how collaborative efforts between bilingual teachers, parents, and school districts and university personnel can effectively build a classroom program in school settings for five year old bilingual kindergarten children. The procedural format for the program and its curricular scheduling are derived from Piagetian psychology. In order for cognitive and language growth to occur, young bilingual children need to acquire physical and logico-mathematical knowledge as well as social and representational knowledge in classroom settings.

Glosenger shares procedures which bilingual teachers and parents can use in developing learning centers for bilingual children in school and home. The simple process of collecting activities around a topic or subject of interest to bilingual

children and using them with the youngsters can enhance their cognitive and language abilities. The learning center concept used in homes and schools brings together bilingual children, parents and teachers for skill development and the youngsters, as outcomes, also learn to explore and discover in their environments.

Prewitt Diaz explores how bilingual children learn to read a second language and draws implications for cultural adjustment. The dimensions of reading is: (a) physically perceiving the written symbol; (b) decoding the symbol into linguistic sense; and, (c) inferring meaning, are particularly difficult for bilingual children learning to read in a second language. Their difficulties are compounded--especially for bilingual children that migrate, adapt and resettle. By using reading as a tool for readjustment, bilingual programs working with both parent and child can assist the bilingual individual to connect oral speech and written symbols and introduces reading within a context of familiar experiences and vocabulary structures. Collaboration here is aimed to diagnose and remediate the bilingual children's reading ability in context for the child, family and location.

Prewitt Diaz in Chapter 6 shares ideas and implications of a collaborative effort to work effectively with Puerto Rican students and others who have difficulty communicating in a second language. The collaborative efforts between home, school, state and institutions of higher education must be aimed at marshalling resources to solve problems of migration/remigration in the context of second language reading instruction and individual's attitudes toward second language learning and self-esteem. The author identifies and describes exemplar bilingual programs that have successfully attempted to solve these problems using the collaborative model approach in school and home programming.

Effective bilingual programming in the 1980's means planned and cooperative efforts between many groups and agencies to insure that resources are pulled and focused on solving problems of individuals with limited English proficiencies. The

ideas shared within this volume have been employed to develop bilingual programming; it is up to the reader to employ and/or modify them for effective use in similar or different settings--for as noted eloquently by the radio and television commentator—". . .you, the bilingual educator, are the rest of the story!"